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THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:

Thomas J. CAMPANA, JR. et al

Serial No.:

07/702,939

Filed:

May 20, 1991

For:

ELECTRONIC MAIL SYSTEM WITH RF

COMMUNICATIONS TO MOBILE PROCESSORS

Group:

2608

Examiner:

G. Oehling

THIRD SUPPLEMENTAL AMENDMENT

Honorable Commissioner of Patents and Trademarks Washington, D. C. 20231 May 23, 1994

sir:

This is supplemental to the Second Supplemental Amendment filed May 13, 1994.

IN THE SPECIFICATION:

Please amend the specification as follows:

Page i (before Page 1), line 12, change "10-14" to

In the Attached Appendix: Delete the original 15 pages of the Appendix as filed on May 20, 1991 and insert a substitute Appendix which is attached to this Third Supplemental Amendment consisting of a cover page and numbered pages 1-12.

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IN THE CLAIMS:

Please add new claim 176 as follows:

--176. A method of transferring information from a RF receiver to a processor under control of a program stored by the processor comprising:

transmitting the information with a RF transmitter to the RF receiver:

the RF receiver signalling the processor on a transmission medium of the processor used for transmission of information by the processor that the received information is stored within memory of the receiver;

controlling the transfer of the stored information from the memory of the receiver to a memory of the processor on the transmission medium with the program; and

processing the information in the memory of the processor with an application program stored in the memory of the processor.--

REMARKS

The Applicants are presenting claim 176 herein which is identical to claim 81 of Serial No. 07/702,319 and claim 86 of Serial No. 07/702,938 for the purpose of having the Examiner consider the possibility of double patenting between claims 78, 79 and 81-89 in Serial No. 07/702,319 and claims 68, 69 and 86 in Serial No. 07/702,938.

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If the Examiner finds the subject matter of at least claim 176 to be present a situation requiring restriction, it is requested that the Examiner indicate in this application on the record to that effect and in Serial Nos. 07/702,319 and 07/702,938, respectively, with respect to claims 78, 79 and 81-89 and 68, 69 and 86. If restriction is required in this application and in Serial Nos. 07/702,319 and 07/702,938 regarding at least the subject matter of claim 176, Applicants will cancel the subject matter so restricted from all applications now pending and file a divisional application.

Newly submitted claim 176 covers the operation of the receiver 119 transferring originated information to the destination processors, as illustrated in Fig. 10, as described on pages 46 and 47 of the specification and pages 1-9 of the Appendix. Claims 160 and 161, which are respectively dependent on claims 137 and 157, also recite aspects of the transfer of the other originated information for use with application programs.

The Examiner, for purposes of determining the patentability of claim 176, is referred to the description of the prior art including the paging receiver(s) 119 and peripheral device 119' in Figs. 2 and 7 as described in the specification. Further, a description of a connection of a paging receiver to a peripheral device as prior art is found in the United States Patents and pending applications identified on page 9 of the specification.

The substitute Appendix contains numbered pages which are consistent with the description of the page numbers of the Appendix on page i of the specification as amended. The copyright notices on pages 4 and 10 of the original Appendix have been deleted from pages 4 and 10 of the substitute Appendix to be consistent with the copyright notice which precedes page 1 of the original and substitute Appendix. The description of the Appendix on page i of the specification has been amended to refer to pages 10-12 as being the program for controlling the operation of the interface switch. Deleted pages 13-14 were not used as the code for controlling the interface switch.

The inventors will file a Supplemental Declaration affirming subject matter of this Amendment as being part of their invention as filed.

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, Deposit Account No. 01-2135 (780.29767X00), and please credit any excess fees to such deposit account.

Respectfully submitted,
HENDERSON & STURM

William H. Wright Registration No. 26,424

WHW:dlh

Copyright Thomas Campana, Jr. 1991

Sdefine ATT_EMAIL_FILE Sdefine DELIMITER

WTFHCBCH.THP# WEND of Telefind Network Message\n*

/

```
#include <string.h>
#include <time.h>
#include <stdio.h>
#include <doe.h>
#include #eafari.h*
void main(void)
         FILE *Infile, *outfile;
         char buffer (817, chr, timestr [61, datestr [9];
         cher meg_rum(4);
         int meg_num_opt = 0;
         cher *ptr;
         fnt x,day,month,lfne=1,ettmail=0;
         time_t t;
         if ((infile = fopen(ATT_EMAIL_FILE, "rt")) == MULL)
                  printf("% does not extet\r",ATT_BMAIL_FILE);
                  exit(0):
         if ((outfile = fopen("tfmobox.988","wt")) == NULL)
                  printf("Can't open TPMOBOX.SES\n");
                  exit(0);
         3
         for(;;)
         €
                            get characters from .tmp/file
                           chr = fgetc(infile);
if (feof(infile))
                            €
                                     fclose(infile);
                                     fclose(outfile);
                                     ex11(0);
                            buffer [x++] = chr;
                                until end of line
                   while (chr |= '\n' & x |= 80);
                  buffer(x) = '\0';
                                                      terminate it
                   if (Line == 1)
                            ptr = strchr(buffer,')');
                            If (ptr-buffer == 2) /* was 3rd character */
                            •
                                     ascanf(buffer,"%('))",msq_num);
msg_num_opt = 1;
                                     ptr++;
                            else
                                     ptr = buffer;
                            if (*ptr == ':' &4 *(ptr+1) == 'D')
attmil = 1;
                   >
                   if (attmail)
                            switch(line)
```

```
detestr = mm/dd, timestr = hh:mm
                           sscanf(datestr, "%d/%d", &month, &day);
                                                                               •/
                                    get year from po
                           t = time(HULL);
                           fprintf(outfile, "Date: %e", ctime(&t));
                           break;
                           fprintf(outfile, "From: No", buffer);
                           break;
                           fprintf(outfile,"Subject: %e",buffer);
fprintf(outfile,"To: diame here>\n");
                           defaults
                          fprintf(outfile,=Ke=,buffer);
                          breek;
else
         if (line == 1)
                  t = time(MULL);
                  fprintf(outfile, "Date: %e", ctime(&t));
                  fprintf(outfile, "From: tfmobox\n");
                 fprintf(outfile,"Subject: Telefind Network Message\n");
fprintf(outfile,"To: <Neme here>\n");
                 if (msg_num_opt)
                          fprintf(outfile,"Message #No\n",msg_num);
fprintf(outfile,"%sh,buffer>3);
                 else
                          fprintf(outfile,=%s=,buffer);
        else
                 fprintf(outfile, "%e", buffer);
if (stromp(buffer,DELIMITER) == 0)
        meg_num_opt = line = attmefi = 0;
line ++;
```

```
1990 TELEFIND CORP.
        Copyright:
                                   MICHAEL P. PONSCHKE, SR.
        Authors
                                   03/13/91
                                   TO EXTRACT NESSAGES FROM A TELEFIND PAGER
VIA IN RS-232 PORT ON A PC
        Program:
        Purpose:
                                    TURBO C++ 1.0
        compilers
                                    MALL
        Memory Model:
#include <dos.h>
#Include <stdio.h>
#Include <comio.h>
#include <atring.h>
#include <atdlib.h>
Sinclude #safari.hu
                                              •/
                  CONSTANTS
                                     0x01
#define DTR_HI
#define DTR_LD
                                     Oxfe
                                     0x02
                                     0xfd
 #define RTS_LD
                                     0x20
 #define DSR_HI
                                     0x40
 #define RING_IN
                                     0x80
 #define CD_HI
 #define FIVE_TICK
 #define FIVE_SEC
                                     220
 #define THELVE_SEC
                                      "LOG"
                                     "Please standby, retrieving messages ..."
 #define LOG_FILE
 #define INTRO_STRING
       FUNCTION PROTOTYPES
                                      •/
 fnt beep(void);
void busyoff(void);
  void busyon(void);
void disoff(void);
  void dison(void);
  int link(void);
  void print_message(void);
  int radata(void);
  int strobe(void);
  int strobe data(void);
unsigned ticks(void);
  int timeout(unsigned start, int delay);
       VARIABLE DECLARATIONS
  char pager_buffer(5111);
int com_base,control_reg,status_reg,log_flag;
  FILE *Log_file;
   world main(int num_arg, cher **args)
            uneigned start;
            int restart, x;
                                               use com 1 unless command line denotes otherwise
            com_base = 0x3f8;
                     get command line arguments
                                                          */
```

```
all command line organists begin with a single '-' and
must be separated by a single space between each other
end the program name
         Use COM port 1
Use COM port 2
         Log all activity to a file named LOG
If (num\_erg > 1)
          for (x=1; x<num_erg; x++)
                   if (stromp(arga(x), w-1=) em 0)
com_base = 0x3f8;
                   if (stromp(args(x), m-2m) mm 0)
                   com_bees = 0x2f8;
if (etromp(ergs[x], H-FH) == 0)
                              log_flag = 1;
          if ((log_file = fopen(LOG_FILE, Met*)) == NULL)
 ff (log_flag)
                    printf("Unable to open LOG\n");/
 control_reg = com_base + 4;
statue_reg = com_base + 6;
 c(racr();
                                      is pager attached ?
 if (Link() == 0)
          printf("Please attach Message Receiver \n");
           exit(0);
                               /*/start busy at logic high
 busyon();
 if (log_fies)
fprintf(log_file, "initiating process \n");
printf("Me\n", INTRO_STRING);
dison();
/* push display button */
  eleep(2);
  do
            start = ticks();
            restart = 0;
                      if (beep())
                                print_message();
                                restart = 1;
start -= THELVE_SEC;
                                breek;
             /* hold display button for 12 seconds */
while(| timeout(start,TWELVE_SEC));
   while(restart);
                       /* release the display button */
   disoff();
    if (log_flag)
    €
              fprintf(log_file, "Process Complete \n");
```

```
fclose(log_file);
        )
 int beep(void)
             eses the RI line vis the Status Register
        which is activated when the pager beeps
        uneigned start;
        start = ticks();
while ( 1 timeout(start,FIVE_TICK))
        £
                if ((inportb(status_reg) & RING_IN) == 0 )
                        return(1);
        return(6);
        busyon & busyoff toggle the DTR line via the
        Control Register to strobe in date from the pager
                                                                                  •/
void busyoff(void)
        outportb(control_reg,inportb(control_reg) | DTR_HI);
,
void busyon(void)
        outportb(control_reg,importb(control_reg) & DTR_LD);
        dison & disoff toggle the RTS line via the Control Register
        to almulate the pressing of the display button on the pager
void dison(void)
        outportb(control_reg,inportb(control_reg) | RTS_HI);
void disaff(void)
        outportb(control_reg,inportb(control_reg) & RTS_LO);
)
int link(void)
        accesses the CD line via the Status Register
        which is Logic high when pager is connected
        if ((inportb(status_reg) & CD_H1) == D)
       return(0);
void print/message(void)
        filE *file;
       unsigned start;
int x,y=0,z=0,chr,bit;
```

6

```
busyoff();
                         ready to accept pager data
                 read until and code received
 while (ohr 1= 3)
         chr = 0;
         start = ticks();
                 welt for start bit
                 bit = strobe();
                 if (bit == 0)
        while (ftimeout(start,FIVE_REC));
         if (bit)
         C
                 if (log_flag)
                         fprintf(log_file,"Transmission Error, recheck connection\n");
                 disoff();
                 exit(0);
                        strobe out 8 bit data
        for (x=1; x<9; x++)
                 chr <<= 1;
                chr += bit = strobe_data();
        for (x=1;x<3;x++)
                strobe_data();
             extract start and and codes from message
                                02, 18, 00, 33
             pager alignon
             pager aignoff
        if ((y > 3) 64 (chr i= 3))
                /* pager characters 96 and 97 are converted to
                  OXFA and OXFS to display on pager
                if (chr == Oxfa)
                                                                •/
                chr = '\n';
if (chr == Oxfb)
                                                                •/
                                              convert to TAB
                       chr = 0x09;
                peger_buffer(z) = chr;
                2 447
pager_buffer[z] = '\0';
                                              nuli terminate
busyon(); /*
                      finished receiving data
                                                        •/
```

```
if (log_fles)
                    fprintf(log_file,"%a\n",pager_buffer);
           if ((file = fopen(ATT_EMAIL_FILE, "at")) == NULL)
    fprintf(log_file, "unable to open TFMOSOX.TMP\n");
           else
                    fprintf(file,"%a\n",pager_buffer);
fprintf(file,"%e",DELIMITER);
delegatified
                    fclose(file);
          start = ticke();
          while(!timeout(start,FIVE_SEC))
                   wait for erase beep
                    (f (beep()) break;
          sleep(1);
int rudata(void)
•
          accesses the DSR line via the Status Register
          which returns the bits value
          if (inportb(status_reg) & DSR_N1)
    return(0);
          return(1);
3
int strobe(void)
          int bit;
         busyon();
          delay(1);
         busyoff();
         delay(4);
         bit = rxdeta();
         return(blt);
int strobe_deta(void)
          int bit;
         busyon();
         delay(2);
         bit = rxdeta();
busyoff();
         delay(1);
return(bit);
unsigned ticks(vold)
                  returns timer ticks (approx. 18.2/sec) using only lower registers
         union REGS in, out;
         in.x.ax = 0x0;
         int86(0x1a,Lin,Lout);
         return(out.x.dx);
```

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```
/* mark the end of the command line you built, so you can add ending
          delimiter */
       sys_command[i] = NULL;
       /\star add the ending quote for the users message so shell wont
          interepert special characters */
       strcat(sys_command, "\'");
       /* execute command you built */
       system(sys_command);
       printf("sending message: %s\n", sys_command);
    else {
       if(strlen(mesg) == 0 ) {
          return(0);
      /* print error for invalid message length */
printf("telemail error: invalid message length: %s\n", mesg);
       return(0);
    return(i);
    function: getline(hold-buffer, input/file-pointer)
    arguments: pointer to buffer where line read will be heald,
                 file pointer to input fale
    description: reads 1 line of text from the input line and stores the
                   line read into the buffer passed.
    returns: -1 if EOF or number of characters read in
getline (buff, fp)
char *buff;
FILE *fp;
   int ch, cnt;
   /* keep on reading characetrs from file so long as end of file not
reached or char is the end of line */
   for(cnt = 0; ((ch' = fgetc(fp)) != EOF) && ch != '\n'; cnt++) {
    /* MOD BY OT 11/29/90 convert tab to space */
        /* convert/ tabs to single space */
        if(ch == /9) {
        /* MOD BY OT 11/29/90 dont allow control char */
        /*/only load in ascii characters */
        if(isprint(ch) != 0) {
           buff[cnt] = ch;
        else {
              /* turn control characters to spaces */
buff[cnt] = ' ';
   /* mark the end of the buffer you built */
   buff[cnt] = ' \setminus 0';
```

```
function: send_mesg(message-pointer)
     arguments: pointer to text message (capcode, text) to be sent description: takes passed message text makes sure the first 8 positions are numeric(capcode). it builds and executes the network send command(netsend.sh) to sedn the message passed.
     returns: 0 if not sent otherwise the number of character, sent out
int send mesg(mesg)
char *mesg;
    char sys_command[700];
    int i;
    int ch;
   char *mesg_ptr;
    /* left justify the message passed to remo√e leading spaces */
   strljust(mesg, 512);
/* trim off trailing blank spaces from the message */
   strtrim(mesg);
    /* make sure you have a capcode at/least */
   if(strlen(mesq) > 8) {
        /\star start to build the command to be executed to send message retreieved
        from the mail box */
strcpy(sys_command, "netsend.sh ");
        /* loop while still more characters in the message */
        for(mesg ptr = mesg,/i = 11; *mesg_ptr != NULL; i++, mesg_ptr++) {
             /* make sure the first 8 positions of the message are numeric */
if((i < 19) && (*mesg_ptr < '0' || *mesg_ptr > '9')) {
    printf("telemail error: invalid capcode: %s\n", mesg);
                   return 0;
             }
             /\star is the user didsnt seperate capcode & message then insert a
                   space into the command */
             if(i/== 19 && *mesg_ptr != ' ') {
    sys_command[19] = ' ';
    i = 20;
             /* enclose the users message with ' so shell wont interpet
                 special characters */
             if(i == 20) {
                 sys_command[20] = '\'';
i = 21;
            /* put the character from the message onto to the
            command to be executed **/
sys_command[i] = *mesg_ptr;
        )
```

}

```
/* since your just starting clear the message area */
memset (mesg, NULL, MAXMSGLEN);
/* keep on geting lines from the file until you reach end of file ^*/ while (getline (buff, fp) !=-1) {
    /* every mail message start with the word "From "
if(strncmp(buff, "From ", 5) == 0) {
        /* set flag telling you are currently going thru mail header
so you dont add it to the message */
        in header = 1;
        /* call routine to the last message if any exists */
        send_mesg(mesg);
        continue;
    /* a mail header end with the following string */
if(strncmp(buff, "Content-Length:", 15) == 0) {
   /* turn off flag so you know you are no longer in mail
      message header */
        in header = 0;
        /* clear the old message since this is a new one */
        memset (mesg, NULL, MAXMSGLEN);
        continue;
    /* if the line you are now reading in not part of the mail header
    add it to the message */
if (in header == 0) {
        strljúst (buff, 512);
        strtrim(buff);
/* make sure you dont add more than the message length */
        if ( (strlen(buff) + strlen(mesg)) < MAXMSGLEN) {
    strcat(mesg, " ");
    strcat(mesg, buff);
} /* end of read line while */
/* send the last message in the file */
send_mesg(mesg);
```